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COTTAGE POLLUTION CONTROL  
PROGRAM

CENTRAL REGION



COUNTY OF HALIBURTON

BIG HAWK LAKE

LITTLE HAWK LAKE

WOLF LAKE

RAVEN LAKE

COMMUNITY OF DORSET

DISTRICT MUNICIPALITY OF MUSKOKA

LEECH LAKE

SIX MILE LAKE

RAVEN LAKE

COMMUNITY OF DORSET

1987

JUNE 1988



Environment  
Ontario

Jim Bradley  
Minister

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THE MINISTER OF THE ENVIRONMENT, 1988

COTTAGE POLLUTION CONTROL PROGRAM  
MUSKOKA-HALIBURTON

JUNE 1988

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COTTAGE POLLUTION CONTROL PROGRAM

1987

BIG HAWK LAKE	- STANHOPE & SHERBOURNE TOWNSHIPS	COUNTY OF HALIBURTON
LITTLE HAWK LAKE	- STANHOPE TOWNSHIP	COUNTY OF HALIBURTON
WOLF LAKE (Billings Lake)	- GLAMORGAN TOWNSHIP	COUNTY OF HALIBURTON
RAVEN LAKE	- SHERBOURNE TOWNSHIP & RIDOUT WARD, TOWNSHIP OF LAKE OF BAYS	COUNTY OF HALIBURTON & DISTRICT MUNICIPALITY OF MUSKOKA
COMMUNITY OF DORSET	- RIDOUT WARD, TOWNSHIP OF LAKE OF BAYS & SHERBOURNE TOWNSHIP	DISTRICT MUNICIPALITY OF MUSKOKA & COUNTY OF HALIBURTON
LEECH LAKE	- OAKLEY WARD, TOWN OF BRACEBRIDGE	DISTRICT MUNICIPALITY OF MUSKOKA
SIX MILE LAKE	- BAXTER WARD, TOWNSHIP OF GEORGIAN BAY	DISTRICT MUNICIPALITY OF MUSKOKA

REPORT PREPARED BY  
ABATEMENT EAST SECTION  
MUSKOKA-HALIBURTON DISTRICT OFFICE  
GRAVENHURST

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## PREFACE

Ontario's thousands of beautiful inland lakes provide an abundant resource for recreational enjoyment. To protect the quality of these waters, a delicate environmental balance must be maintained.

A heavy influx of people may subject a lake and its surrounding environment to great stress. Uncontrolled development and imprudent use of our recreational lakes may cause their deterioration and destroy their natural qualities.

The Ontario Ministry of the Environment is attempting to bring some of these stress factors under control by a variety of programs. One of these, the Cottage Pollution Control Program, was initiated in 1970 to study the cottage waste disposal problem, to evaluate existing waste disposal systems and to enforce repairs to those found to be unsatisfactory.

### SUMMARY

The objective of the program is to examine and evaluate all existing sewage disposal systems on recreational lakes and to ensure satisfactory correction to all faulty systems.

The detection work is conducted by trained seasonal staff (students) who survey all the systems on selected lakes. The surveyed systems are evaluated by Environmental Technicians. The systems found to be malfunctioning are checked by an Abatement Officer who negotiates an agreement with the owner for corrective work to be executed. The corrected system is examined again to ensure compliance with the agreement and pertinent regulations.

In 1987, 1049 private sewage disposal systems were inspected at the following locations: Community of Dorset, District Municipality of Muskoka and County of Haliburton; Big Hawk, Little Hawk, Raven and Wolf (Billings) Lakes, County of Haliburton; Leech and Six Mile Lakes, District Municipality of Muskoka. The inspection of these systems indicated that 27.4% were performing satisfactorily, 23.5% were seriously substandard, 39.8% were discharging washwater or solid waste onto the ground surface, 0.8% were direct polluters and 8.4% were unclassified after the initial survey. Appendix I is a summary of the inspection results.

As of December 31, 1987, 135 agreements for corrective work to be carried out had been signed by the owners. Corrections have been completed and inspected for 94 systems; 286 systems remain uncorrected, however, negotiations are continuing in anticipation of correction by owners in the spring of 1988.

## Sommaire

L'objectif du programme consiste à examiner et à évaluer les installations d'évacuation des eaux d'égout aménagées à proximité des lacs à vocation touristique, puis à veiller à ce que celles qui sont défectueuses soient réparées convenablement.

Les travaux sont effectués par des étudiants que le Ministère a engagés pour les mois d'été pour étudier l'ensemble des installations dont l'effluent se déverse dans certains lacs désignés. Celles-ci sont ensuite évaluées par des techniciens de l'environnement et celles qui fonctionnent mal sont vérifiées par un agent de dépollution qui négociera alors une entente de réfection avec le propriétaire. Une fois les travaux terminés, les installations sont revérifiées pour s'assurer qu'elles sont conformes aux conditions de l'entente et aux règlements pertinents.

En 1987, les étudiants ont inspecté 1049 installations privées pour l'évacuation des eaux usées aux endroits suivants : la collectivité de Dorset, située dans la municipalité de district de Muskoka et le comté d'Haliburton; les lacs Big Hawk, Little Hawk, Raven et Wolf (Billings), dans le comté d'Haliburton; les lacs Leech et Six Mile, dans la municipalité de district de Muskoka. Les inspections ont révélé que 27,4 % des installations étaient satisfaisantes, que 23,5 % d'entre elles étaient loin d'être conformes aux normes, que 39,8 % déversaient des eaux de lavage et des déchets solides sur le sol, que 0,8 % évacuaient des eaux usées directement dans les eaux de surface et que 8,4 % ne se classaient dans aucune de ces catégories après le premier examen. On trouvera à l'annexe I la ventilation des résultats.

Au 31 décembre 1987, on dénombrait 135 ententes de réfection et 94 installations avaient été réparées et inspectées; 286 installations restent à corriger, mais les pourparlers se poursuivent avec les propriétaires concernés dans l'espoir qu'ils puissent faire faire les travaux au printemps de 1988.



## COTTAGE POLLUTION CONTROL SURVEY

### Preparation

During the fall of 1986 and winter of 1987, a reconnaissance and mapping program was undertaken on selected lakes by Ministry of the Environment personnel.

The crew counted the number of establishments on each lake. Every one hundredth establishment on the shoreline was photographed and described. The cottage and non cottage properties such as marinas, camp grounds and lodges were then plotted on maps.

Data obtained from the field work, other Provincial and Municipal agencies and Cottage Associations were used to prepare a work schedule for the survey crews.

The co-operation of Cottage Associations contributed greatly to the success of the program. Prior to the commencement of the survey for each lake, the Cottage Association was contacted. Representatives were given a brief outline of the survey procedures. In certain cases, a mid-summer meeting was arranged with the Association during which abatement procedures were discussed.

In the event that a Cottage Association did not exist, notices were posted throughout the area, where people may congregate (local stores, post offices, public docks, etc.). This situation usually exists along rivers or small lakes.

## DETECTION SURVEYS

The crews, each composed of two students, began the survey of the lake by preparing a description log. Each building which is called an establishment was systematically numbered, accurately described and plotted onto a map to facilitate the location of the premises at a future time by detection crews or abatement staff. When the description logging was completed, copies were made and distributed to each crew.

The detection teams visited each establishment on the lake. The owner or occupant was interviewed and the lot surveyed. The information collected included type of building, number of occupants, type of use, water supply and treatment, sewage disposal methods and type, location, size and set back of on-site sewage disposal systems, type and depth of soil and physical evidence of malfunctioning systems. All data collected were entered on survey forms.

From this information the performance of the system was evaluated and the system for each establishment was given a preliminary performance classification. The classification was then verified by the supervisor.

### Classification of Sewage Disposal Systems

The sewage disposal systems of all premises surveyed were classified into one of the following groups.

#### 1. Satisfactory

A system which meets the current standards of good design, construction and location, is properly maintained, is capable of handling sewage flows and is not causing a pollution problem.

#### 2. Satisfactory Performance

A system which may be slightly deficient in design, setback or construction with respect to current standards. The deficiency, however, cannot be of a nature that would constitute a pollution problem.

#### 3. Seriously Substandard

A system which does not meet current standards of design, construction and location, is in a state of neglect or has a limited life. The system is not presently causing a pollution problem, however the

system, due to a serious deficiency, will not be capable of treating the sewage flows in the near future. The owner is notified in writing of the deficiency and advised that serious consideration should be given to upgrading in the near future.

4. Nuisance (washwater is also known as grey water and is classified as sewage)

A system that causes grey water to be exposed on the surface of the ground either directly through a waste pipe or escaping from a leaching pit. Such a condition is considered as a public health nuisance. Phosphates and other nutrients from grey water discharges encourage weed growth and effect the aesthetic quality of the lake.

5. Nuisance (toilet or solid waste)

A system that causes sewage to be exposed on the surface of the ground, either directly through a pipe or escaping from some part of the sewage disposal system. Also included in this classification is "solid waste" or garbage of a kind which can cause a "Nuisance"; for example, domestic garbage containing food waste.

6. Direct Pollution

A system which is permitting sewage or leachate to contaminate the ground or surface water.

7. Unclassified (temporarily)

A system which has been given a preliminary classification by the student inspector where he feels he cannot use any of the preceding classifications and has doubts about the system, or any part of it. These systems require further inspection by the supervisor who will attempt to make a final classification after a thorough investigation.

8. Unclassified

A system which remains unclassified at the end of the survey. This category usually includes a few abandoned premises in a dilapidated condition with a system that is obviously not in use and could not be used.

### Corrective Procedure

After a file is examined by the supervisor and the original classification is confirmed or altered, it is referred to an Environmental Officer if abatement of a problem is required. The Officer then interviews the owner to advise him of the findings and discuss corrective action. If the owner agrees with the findings, a corrective program is initiated. The owner is asked to sign a "Pollution Abatement Report" which describes the problems found and the corrective measures required to be completed by a specific date. A final inspection is carried out upon completion of the corrective work and the sewage disposal system file is appropriately reclassified. Occasionally, an owner refuses to comply with a correction program and legal action must be initiated.

In the case of commercial establishments, this procedure is often more complex, requiring an engineering study and the submission of plans including a soil analysis report for approval. Except where there is direct pollution, the owner is contacted and is instructed to submit plans for corrective measures to be completed prior to the opening of the next commercial season.

Where a direct pollution problem exists, corrective action must be initiated immediately to prevent any further deterioration of water quality in the lake.

### Methods of Sewage Disposal

The cottage areas of Muskoka-Haliburton are mostly unsewered and therefore the cottage owner must use on site sewage treatment and disposal. These systems range from a privy and leaching pit to a proprietary aerobic sewage treatment plant. The type of system used will vary according to lot size, topography, soil type, hydrologic conditions and sewage flows. Most cottagers choose the septic tank system as their method of sewage disposal. This system uses a septic tank and leaching bed. The tank removes solids and the leaching bed uses soil to reduce biological oxygen demand, nutrients, and micro-organisms. Bacteria reduces the sewage to compounds and elements capable of use by the natural environment. Since soil is used as the treatment medium, the system size varies according to type of soil and sewage flows.

Another method of treatment and disposal is the proprietary aerobic package treatment plant. In this system oxygen is mixed with the sewage creating a suitable environment for aerobic bacteria which produces an effluent of improved quality. Therefore the filter bed can be reduced in size.

When sewage flows, topography and soil conditions preclude the installation of a septic tank system or proprietary aerobic package treatment plant, a holding tank is often used. It is not considered a treatment system, and is only intended for sewage retention until it can be removed and taken to an approved disposal site by a licensed sewage hauler.

The privy, incinerating, chemical, recirculating and composting toilets are accepted methods of disposal, however, they are not acceptable for grey water disposal. The leaching pit can be used only for the treatment of grey water in limited water usage situations. A septic tank is not part of the system. Again, soil is used as the treatment medium, therefore lot area, topography, soil type, hydrology and grey water flows are assessed when examining sites.

The Muskoka-Haliburton area is located on the Precambrian Shield with glacial till soil and many granite rock outcroppings, making many lots naturally unsuitable for installation of private sewage disposal systems. Most sites must be modified by the addition of filter material, slope adjustments and drainage alterations.

ABATEMENT PROGRESS FROM 1986 COTTAGE POLLUTION CONTROL  
PROGRAM

During the Summer of 1986, the Cottage Pollution Control Program was conducted on the following lakes: Hall's Lake and Mountain Lake, County of Haliburton; Lake of Bays and Six Mile Lake in the District Municipality of Muskoka. A total of 883 private sewage disposal systems were inspected. Of these, 31.5% were performing satisfactorily, 47.7% were found to be seriously substandard, 20.0% were discharging washwater or solid waste onto the ground surface, 0.2% were direct polluters and 6.6% were unclassified after the initial detection survey. All of the owners with seriously substandard systems were contacted and advised that their system should be monitored carefully and may require updating in the near future. As of December 31, 1987, corrective action on 67% of the systems which required upgrading was completed in Muskoka-Haliburton. The majority of the owners of the remaining systems requiring upgrading have signed agreements for completion during the Summer of 1988.

Legal action is being initiated against the few remaining owners who have refused to respond to attempts by Environmental Officers to have remedial measures completed.

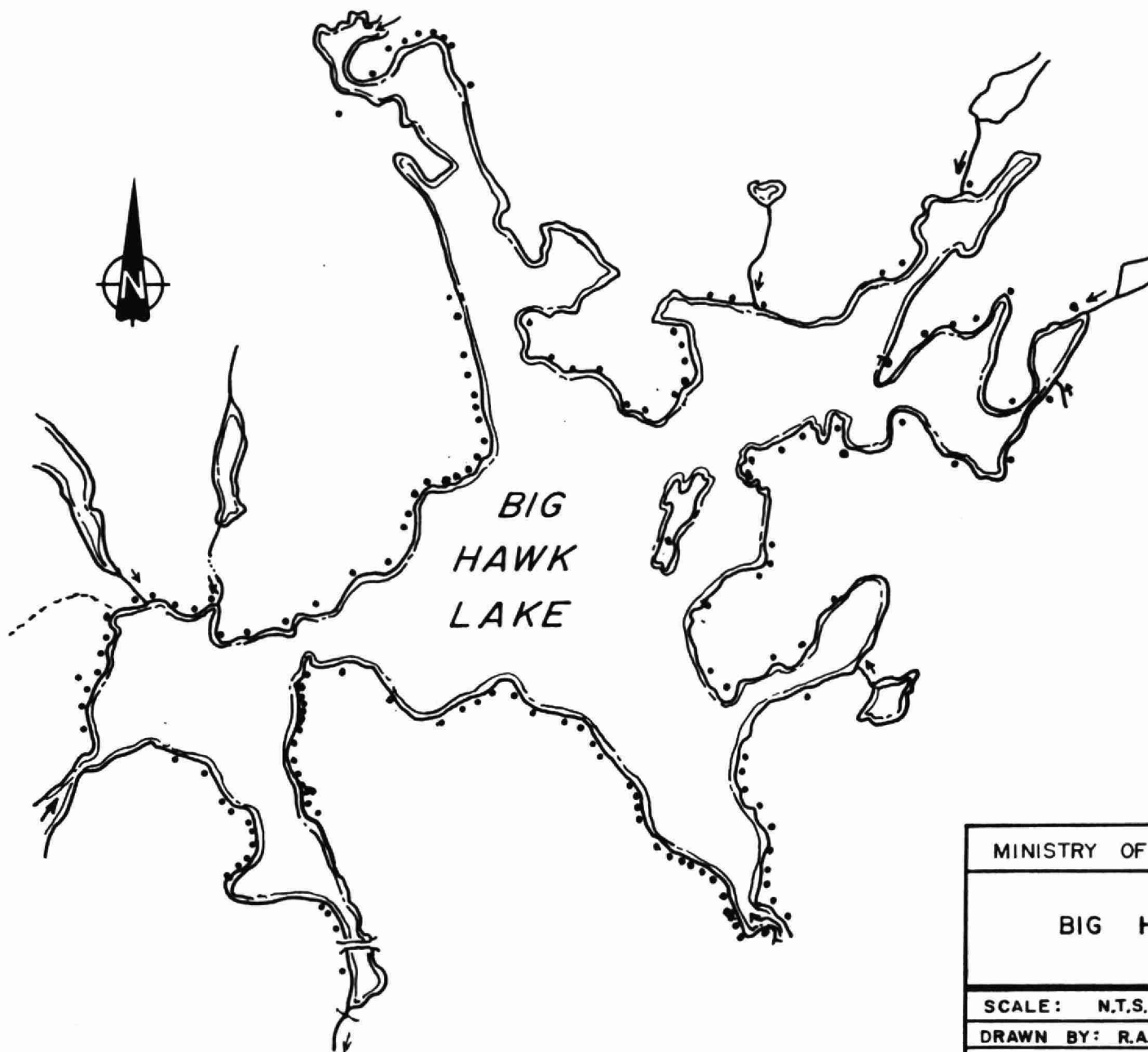
## BIG HAWK LAKE

The geographic description of Big Hawk Lake is the County of Haliburton, Township of Stanhope and Sherbourne, Latitude 45 degrees 10 minutes, Longitude 78 degrees 44 minutes. The perimeter of the lake is 35.6 kilometres and the surface area is 3.89 square kilometres. The maximum water depth is 54.9 metres and the lake is part of the Lake Ontario Drainage Basin.

Big Hawk Lake lies in the Precambrian Shield. The shoreline physiography is typical of many lakes in the Precambrian Shield, shallow till and rock ridges.

There were 164 private sewage disposal systems inspected on Big Hawk Lake during the Summer of 1987. Of these, 45 or 27.4% were classified as seriously substandard, 70 or 42.6% were unsatisfactory due to the improper disposal of solid waste or washwater, 2 or 1.2% were classified as direct polluters and 19 systems or 11.7% were unclassified by the survey crew at the end of the survey.

As of December 31, 1987, 14 malfunctioning systems had been corrected and 31 owners have signed agreements to complete corrections during the construction season of 1988. Ministry Environmental Officers are currently directing their efforts toward obtaining abatement agreements from owners of the remaining malfunctioning system.



MINISTRY OF THE ENVIRONMENT

BIG HAWK LAKE

SCALE: N.T.S.

DRAWN BY: R.A.Q.

DATE: JANUARY, 1988

CHECKED BY: D.E.B.

DRAWING NO.:



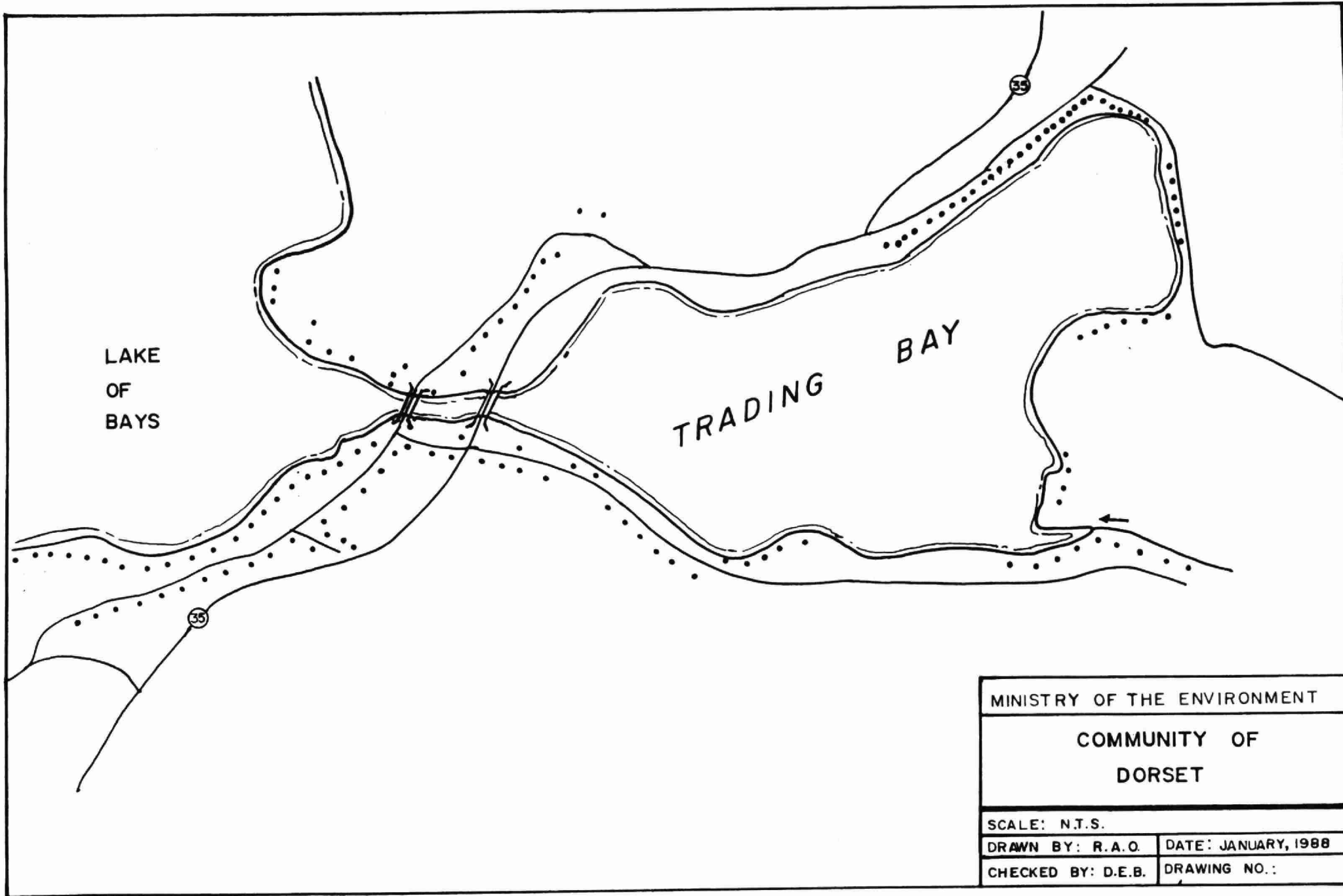
## DORSET

The Community of Dorset is located on the shore of Lake of Bays. The boundary of the District Municipality of Muskoka, Township of Lake of Bays, Ridout Ward and County of Haliburton, Sherbourne Township, divide the community. Its precise location is described as Latitude 45 degrees 15 minutes, Longitude 78 degrees 54 minutes.

The portion of Trading Bay east of the Dorset Narrows is characterized by sand plains. The remainder is shallow till and rock ridges.

There were 148 private sewage disposal systems inspected at Dorset during the Summer of 1987. Of these, 34 or 23.0% were classified as seriously substandard, 30 or 20.3% were unsatisfactory due to the improper disposal of solid waste or washwater, 3 or 2.0% were classified as direct polluters and 11 systems or 7.4% were unclassified by the survey crew at the end of the survey.

As of December 31, 1987, 15 malfunctioning systems had been corrected and 10 owners have signed agreements to complete corrections during the construction season of 1988. Ministry Environmental Officers are currently directing their efforts toward obtaining agreements from owners.



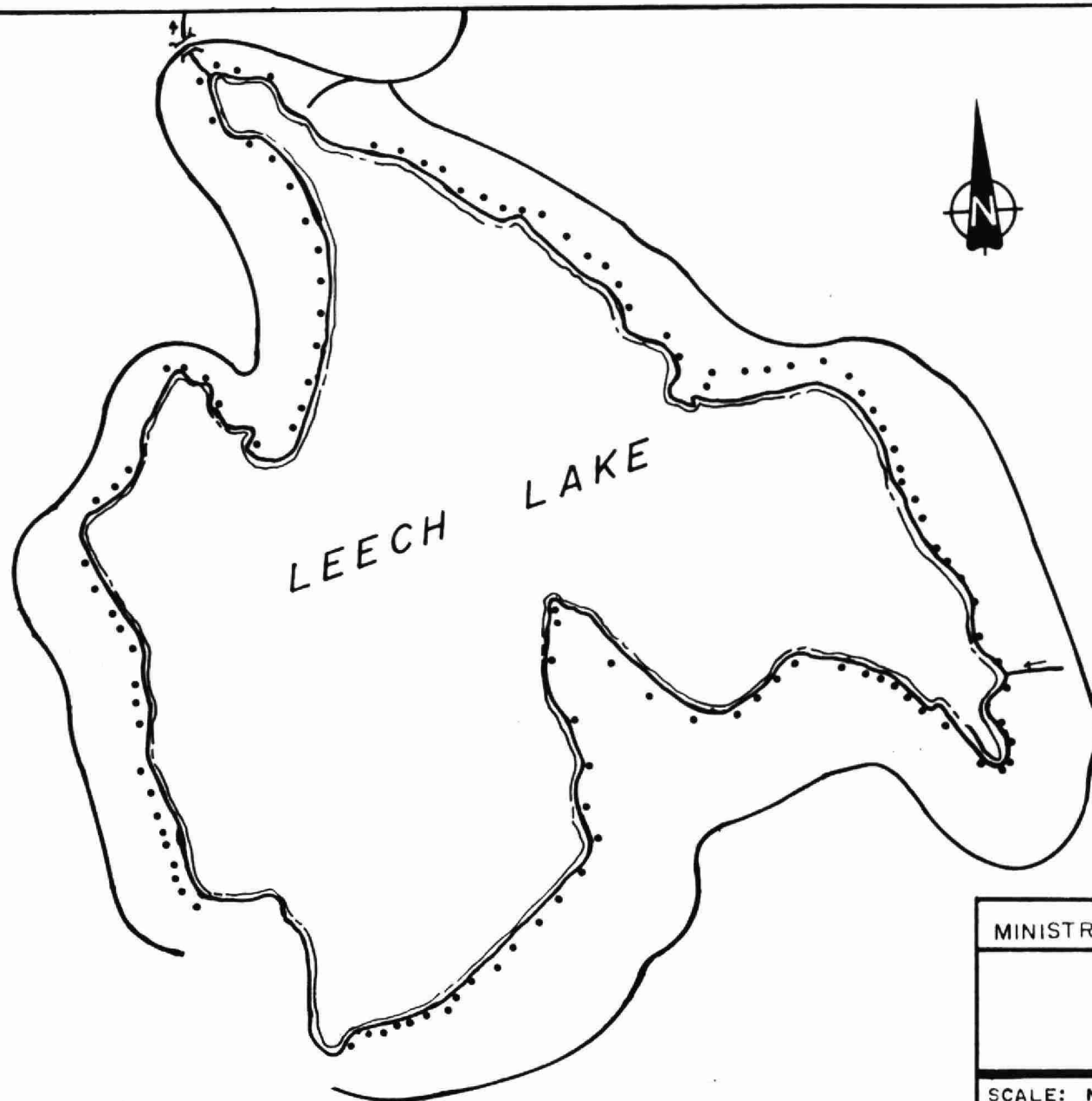
### LEECH LAKE

The geographic description of Leech Lake is the District Municipality of Muskoka, Town of Bracebridge, Oakley Ward, Latitude 45 degrees 03 minutes, Longitude 79 degrees 06 minutes. The perimeter of the lake is 5.6 kilometres and the surface area is 82 hectares. The maximum water depth is 13.7 metres and the lake is part of the Lake Huron Drainage Basin.

Leech Lake lies in the Precambrian Shield and is characterized by bare rock ridges and shallow till.

There were 121 private sewage disposal systems inspected on Leech Lake during the Summer of 1987. Of these, 34 or 28.1% were classified as seriously substandard, 30 or 24.8% were unsatisfactory due to the improper disposal of solid waste or washwater and 8 systems or 6.6% were unclassified by the survey crew at the end of the survey.

As of December 31, 1987, 7 malfunctioning systems had been corrected and 12 owners have signed agreements to complete corrections during the construction season of 1988. Ministry Environmental Officers are currently directing their efforts toward obtaining agreements from owners.



MINISTRY OF THE ENVIRONMENT

LEECH LAKE

SCALE: N.T.S.

DRAWN BY: R.A.O.

DATE: JANUARY, 1988

CHECKED BY: D.E.B.

DRAWING NO.: 8706

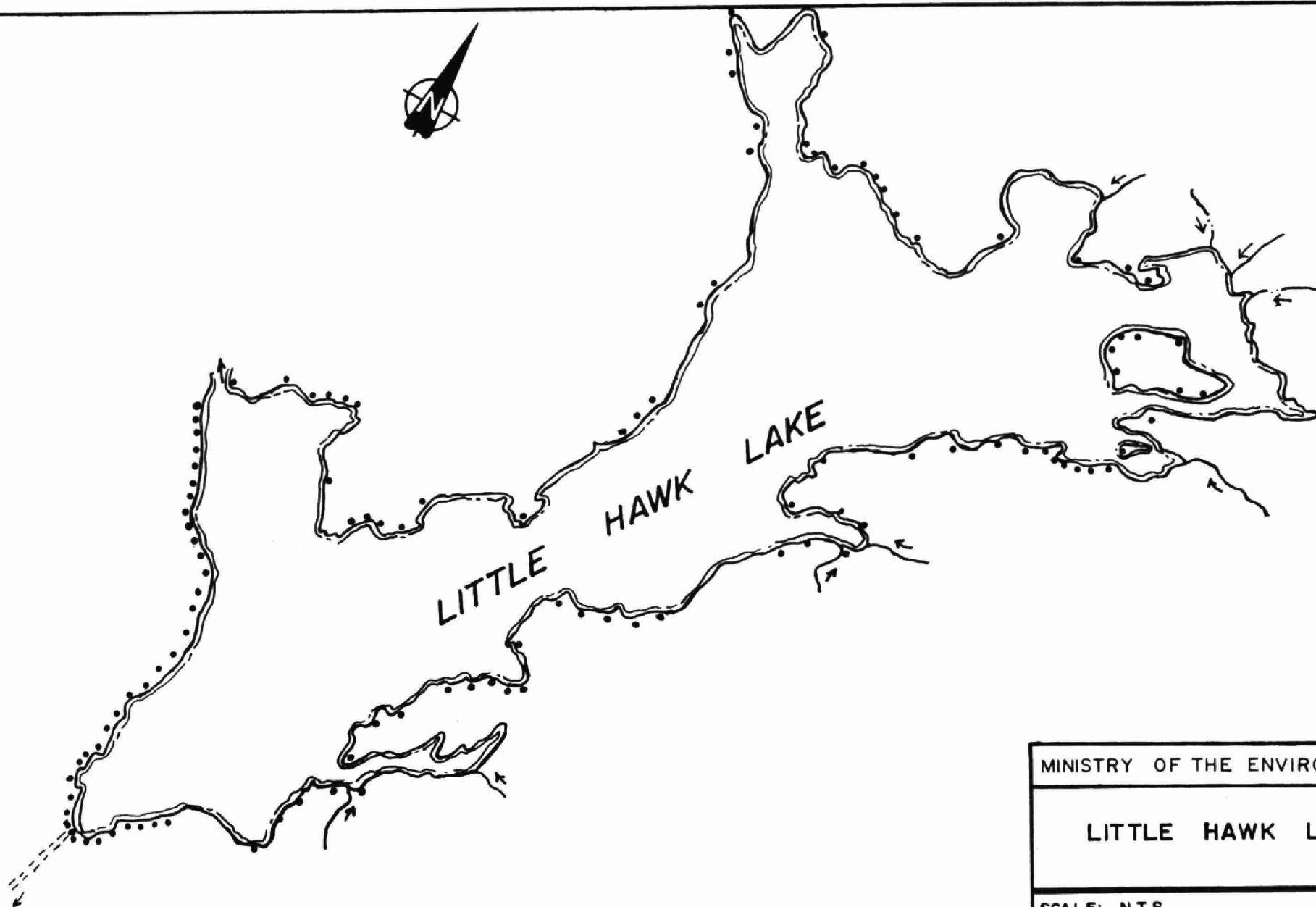
### LITTLE HAWK LAKE

The geographic description of Little Hawk Lake is the County of Haliburton, Township of Stanhope, Latitude 45 degrees 09 minutes, Longitude 78 degrees 43 minutes. The perimeter of the lake is 19.6 kilometres and the surface area is 344 hectares. The maximum water depth is 93 metres and the lake is part of the Lake Ontario Drainage Basin.

Little Hawk Lake lies in the Precambrian Shield. The southwest area lies on a glacial spillway. It is characterized by deposits of stratified sandy soil. The remainder of the shoreline is characterized by bare rock ridges and shallow till.

There were 131 private sewage disposal systems inspected on Little Hawk Lake during the Summer of 1987. Of these, 22 or 16.8% were classified as seriously substandard, 65 or 49.6% were unsatisfactory due to the improper disposal of solid waste or washwater, 2 or 1.5% were classified as direct polluters and 9 systems or 6.8% were unclassified by the survey crew at the end of the survey.

As of December 31, 1987, 10 malfunctioning systems had been corrected and 36 owners have signed agreements to complete corrections during the construction season of 1988. Ministry Environmental Officers are currently directing their efforts toward obtaining agreements from owners.



MINISTRY OF THE ENVIRONMENT

LITTLE HAWK LAKE

SCALE: N.T.S.

DRAWN BY: R.A.O.

DATE: JANUARY, 1988

CHECKED BY: D.E.B.

DRAWING NO.: 8703

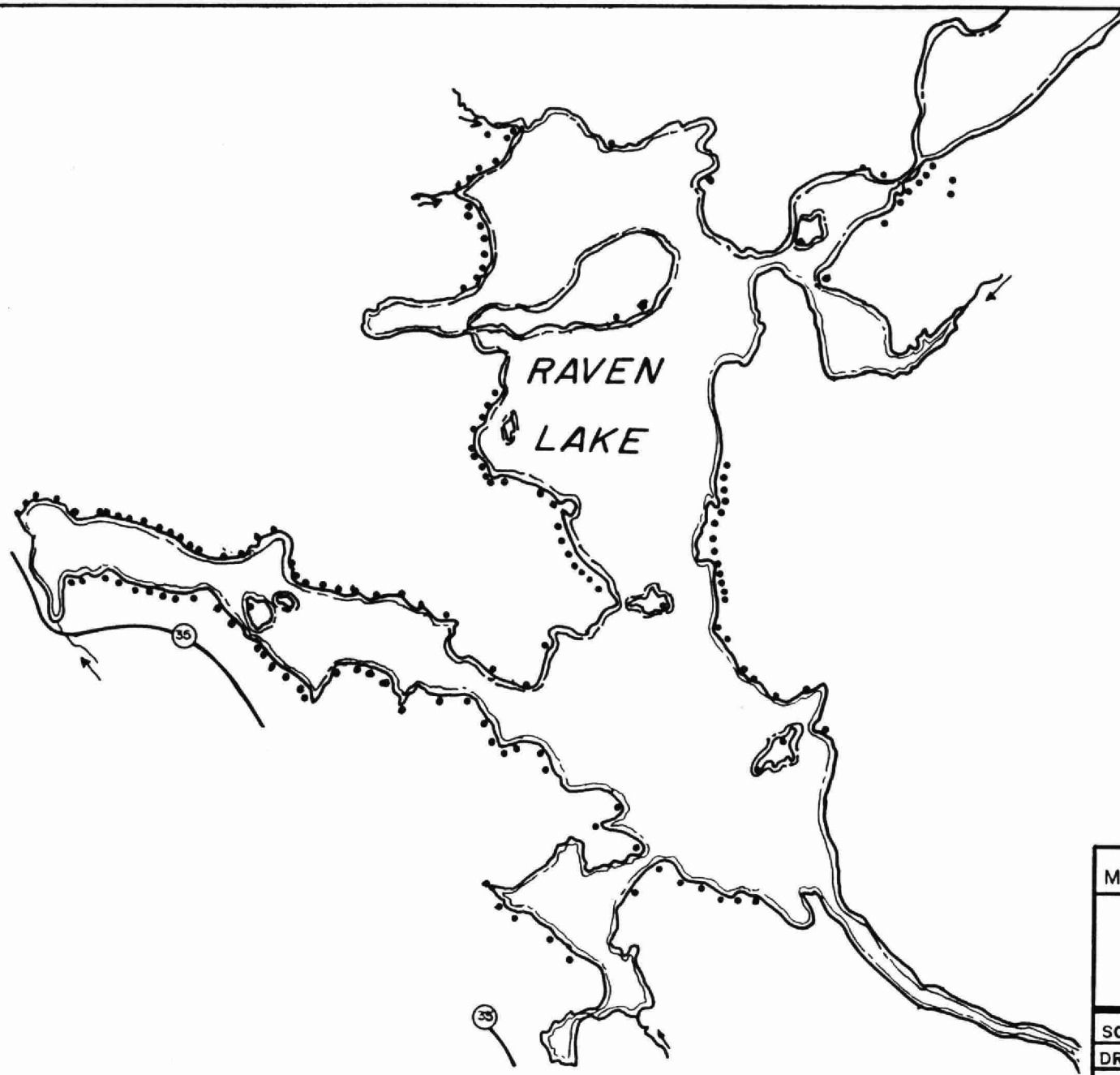
## RAVEN LAKE

The geographic description of Raven Lake is the County of Haliburton, Township of Sherbourne and District Municipality of Muskoka, Township of Lake of Bays, Ridout Ward, Latitude 45 degrees 12 minutes, Longitude 78 degrees 51 minutes. The perimeter of the lake is 36.1 kilometres and the surface area is 560 hectares. The maximum water depth is 41.8 metres and the lake is part of the Lake Huron Drainage Basin.

Raven Lake lies in the Precambrian Shield and is characterized by bare rock ridges and shallow till.

There were 155 private sewage disposal systems inspected on Raven Lake during the Summer of 1987. Of these, 33 or 21.3% were classified as seriously substandard, 85 or 54.8% were unsatisfactory due to the improper disposal of solid waste or washwater, 1 or 0.7% was classified as direct polluters and 14 systems or 9% were unclassified by the survey crew at the end of the survey.

As of December 31, 1987, 6 malfunctioning systems had been corrected and 29 owners have signed agreements to complete corrections during the construction season of 1988. Ministry Environmental Officers are currently directing their efforts toward obtaining agreements from owners.



MINISTRY OF THE ENVIRONMENT

RAVEN LAKE

SCALE: N.T.S.

DRAWN BY: R.A.O. DATE: JANUARY, 1988

CHECKED BY: D.E.B. DRAWING NO.: 8704



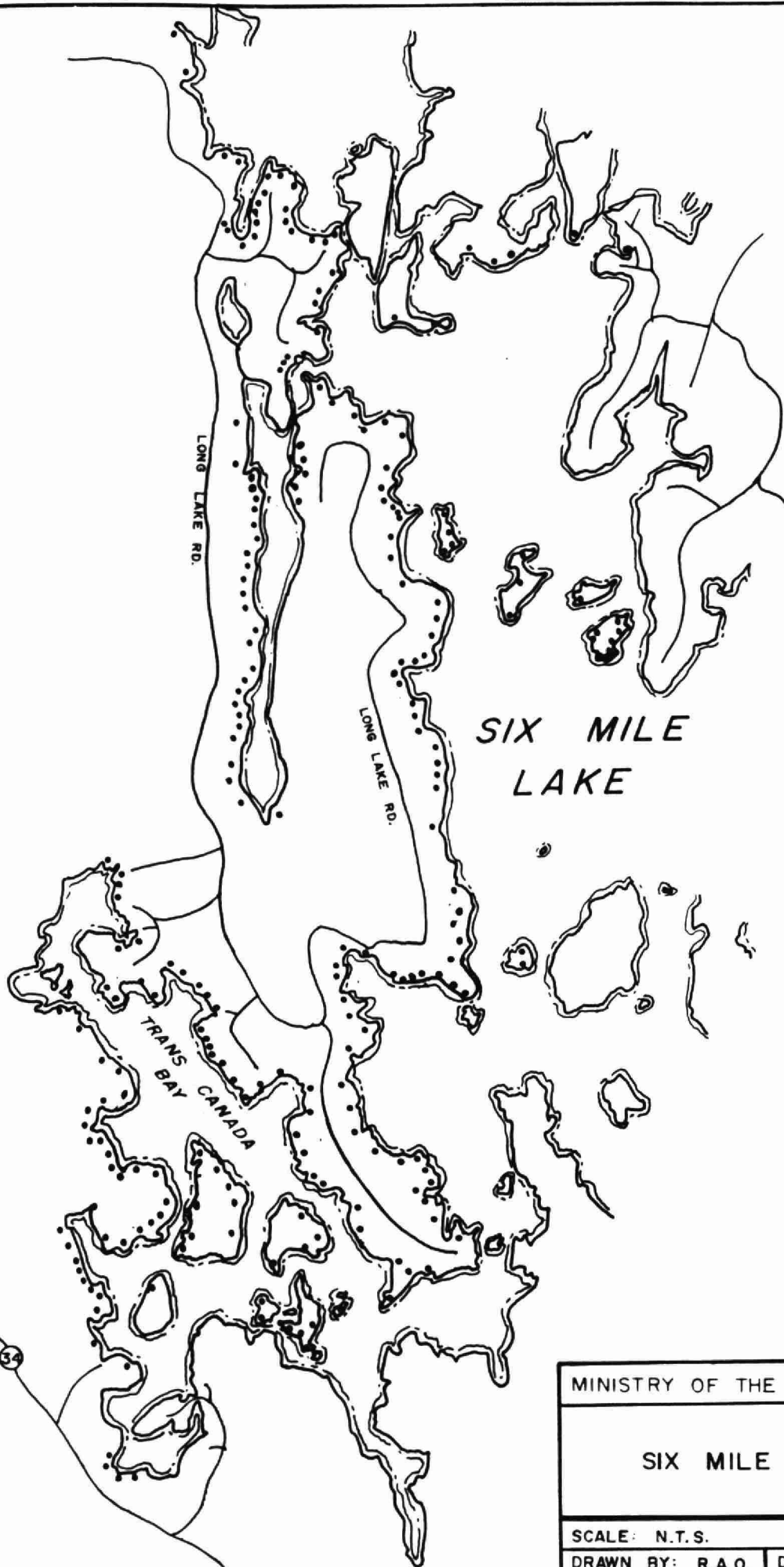
### SIX MILE LAKE

The geographic description for that part of Six Mile Lake surveyed during 1987 is the District Municipality of Muskoka, Township of Georgian Bay, Baxter Ward, Latitude 45 degrees 56 minutes, Longitude 79 degrees 45 minutes. This area consists of shoreline from the southwest corner of Crooked Bay along the western shoreline to the mouth of Trans Canada Bay. The remainder of the area will be surveyed in future years.

Six Mile Lake lies in the Precambrian Shield and is characterized by bare rock ridges and shallow till.

There were 252 private sewage disposal systems inspected on Six Mile Lake during the Summer of 1987. Of these, 52 or 20.5% were classified as seriously substandard, 115 or 45.8% were unsatisfactory due to the improper disposal of solid waste or washwater and 16 systems or 6.3% were unclassified by the survey crew at the end of the survey.

As of December 31, 1987, 14 malfunctioning systems had been corrected and 31 owners have signed agreements to complete corrections during the construction season of 1988. Ministry Environmental Officers are currently directing their efforts toward obtaining agreements from owners.



MINISTRY OF THE ENVIRONMENT

SIX MILE LAKE

SCALE: N.T.S.

DRAWN BY: R.A.O.

DATE: JANUARY, 1988

CHECKED BY: D.E.B.

DRAWING NO.:

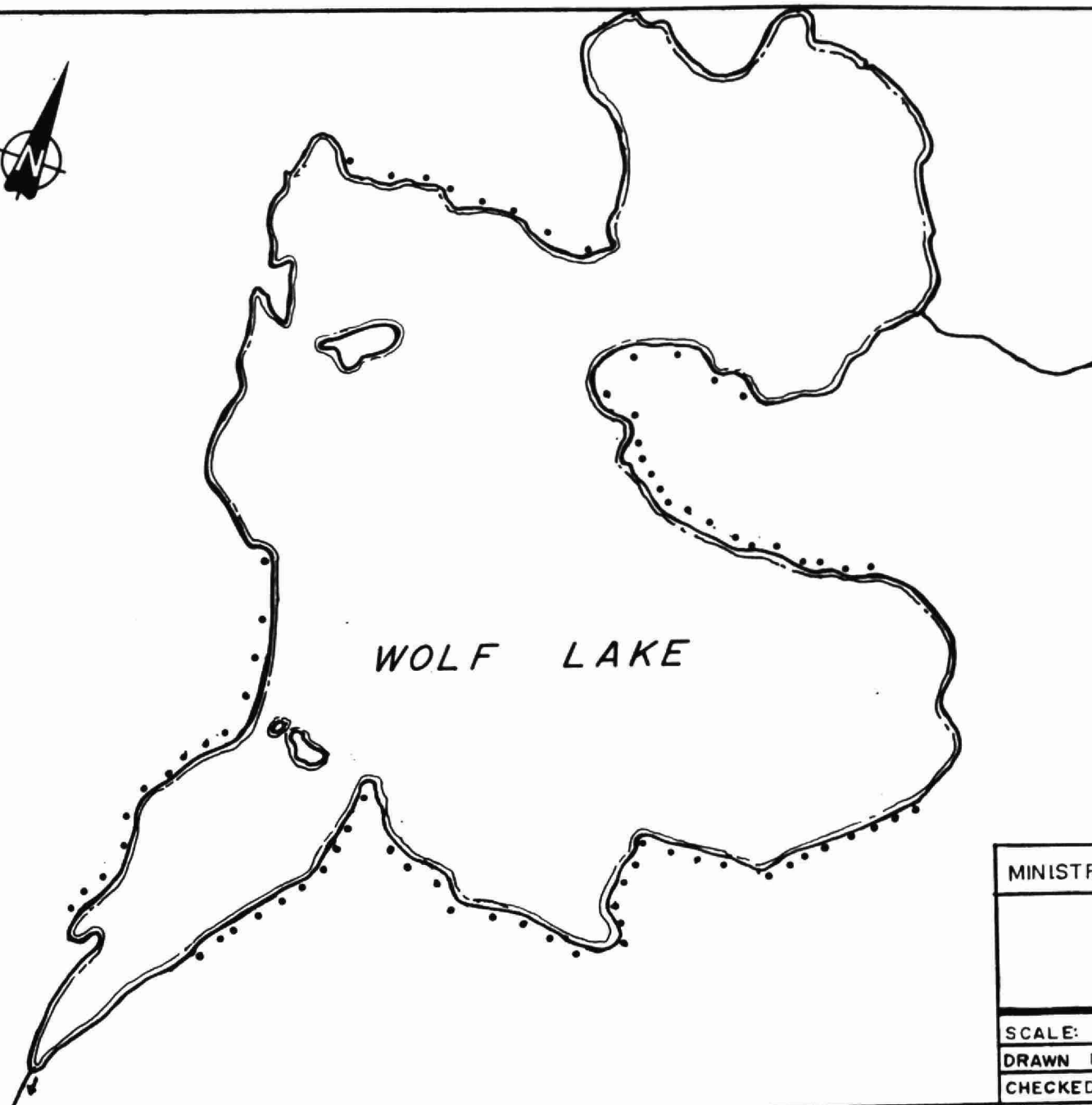
## WOLF LAKE

Wolf Lake is also known as Billings Lake. The geographic description of Wolf Lake is the County of Haliburton, Township of Glamorgan, Latitude 44 degrees 56 minutes, Longitude 78 degrees 22 minutes. The perimeter of the lake is 7.2 kilometers and the surface area is 101.8 hectares. The maximum water depth is 38 metres and the lake is part of the Lake Ontario Drainage Basin.

Wolf Lake lies in the Precambrian Shield and is characterized by bare rock ridges and shallow till.

There were 78 private sewage disposal systems inspected on Wolf Lake during the Summer of 1987. Of these, 27 or 34.6% were classified as seriously substandard, 23 or 29.5% were unsatisfactory due to the improper disposal of solid waste or washwater and 12 systems or 15.4% were unclassified by the survey crew at the end of the survey.

As of December 31, 1987, 5 malfunctioning systems had been corrected and 9 owners have signed agreements to complete corrections during the construction season of 1988. Ministry Environmental Officers are currently directing their efforts toward obtaining agreements from owners.



WOLF LAKE

MINISTRY OF THE ENVIRONMENT

WOLF LAKE

SCALE: N.T.S.

DRAWN BY: R.A.O.

DATE: JANUARY, 1988

CHECKED BY: D.E.B.

DRAWING NO.:

## CONCLUSIONS

1. The Ministry of the Environment will continue to work with owners of malfunctioning sewage systems to ensure that a satisfactory correction is completed in a reasonable period of time.
2. Enforcement action will be initiated against uncooperative owners of malfunctioning sewage systems.
3. The Cottage Pollution Control Program will continue during 1988.

## APPENDIX I

## PRELIMINARY CLASSIFICATION OF SYSTEMS INSPECTED

1987

Body of Water	Number of Systems Inspected	Classification of Systems*															
		Satisfactory		Satisfactory Performance		Seriously Substandard		Nuisance (Wash Water)		Nuisance (Solid Waste)		Direct Polluter		Unclassified Temporarily		Unclassified	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Big Hawk	164	1	0.6	27	16.5	45	27.4	21	12.8	49	29.8	2	1.2	13	8.0	6	3.7
Dorset	148	24	16.2	46	31.1	34	23.0	9	6.1	21	14.2	3	2.0	9	6.1	2	1.3
Leech	121	11	9.1	38	31.4	34	28.1	11	9.1	19	15.7	0	0	7	5.8	1	0.8
Little Hawk	131	0	0	33	25.2	22	16.8	25	19.1	40	30.5	2	1.5	7	5.3	2	1.5
Raven	155	2	1.3	20	12.9	33	21.3	21	13.5	64	41.3	1	0.7	14	9.0	0	0
Six Mile	252	13	5.2	56	22.2	52	20.5	36	14.3	79	31.5	0	0	16	6.3	0	0
Wolf	78	2	2.6	14	17.9	27	34.6	10	12.8	13	16.7	0	0	12	15.4	0	0
TOTALS	1049	53	5.1	234	22.3	247	23.5	133	12.6	285	27.2	8	0.8	78	7.4	11	1.0

\*See page 4 for definition of classifications

LAKE SURVEYED

DISTRICT MUNICIPALITY OF MUSKOKA  
HALIBURTON COUNTY

<u>YEAR OF SURVEY</u>	<u>LAKE</u>	<u>NUMBER OF SYSTEMS</u> <u>INSPECTED</u>
1967	Six Mile (Crooked Bay)	165
1969	Riley	150
1970	Sparrow	302
1971	Muskoka (Muskoka Bay)	270
1971	Leonard	112
1974	Bass (Ryde)	23
1974	Clear (Wood)	155
1974	Harp	78
1974	Kahshe	481
1974	Twelve Mile Lake	168
1974	Wood	205
1975	Muskoka (Bala Bay)	280
1975	Dark	38
1975	Gull (Muskoka)	138
1975	Gull (Haliburton)	413
1975	Silver	37
1975	Three Mile	542
1976	Joseph (Ames Point)	25
1976	Muskoka (Sandy Bay)	17
1976	Dickie	121
1976	Go Home Bay	119
1976	Loon	175
1976	Muldrew	378
1976	Ril	140
1976	Turtle	63
1977	Honey Harbour (South Bay)	834
1977	Muskoka (Milford Bay)	292
1977	Paudash (Haliburton)	364
1977	Joseph (Woodroffe Bay)	44
1978	Honey Harbour (North Bay)	476
1978	Severn River	833
1978	Indian River	67
1979	Esson	117
1979	Kashagawigamog (North Half)	533
1979	Muskoka	463
1979	Miskwabi	78
1979	Nine Mile	138
1980	Black Lake	57
1980	Kashagawigamog (South Half)	273
1980	Muskoka	175
1980	Soyer's	142
1980	Stewart	97
1981	Morrison	175

1981	Muskoka (Broadley Point)	239
1981	Salerno	165
1981	Sunny	56
1982	Boshkung	348
1982	Lake of Bays (Narrows)	127
1982	Muskoka (East Bay, Kettles)	227
1982	St. George	105
1982	Little Dudman	69
1982	Long	88
1982	Negaunee	15
1983	Clement	35
1983	Haliburton ( South Bay)	124
1983	Lake of Bays (Narrows Cont'd)	138
1983	Long (Muskoka)	110
1983	Muskoka (Dudley Bay)	132
1983	Oxbow	134
1983	Waseosa	139
1983	Young	67
1984	Lake of Bays	187
1984	Twelve Mile	249
1984	Little Boshkung	81
1985	Lake Muskoka (Browning Island)	119
1985	Lake of Bays	260
1985	Horseshoe	289
1985	Lower Paudash	256
1986	Hall's Lake	275
1986	Lake of Bays	195
1986	Mountain	260
1986	Six Mile	153
1987	Big Hawk	164
1987	Community of Dorset	148
1987	Leech	121
1987	Little Hawk	131
1987	Raven	155
1987	Six Mile	252
1987	Wolf	78





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